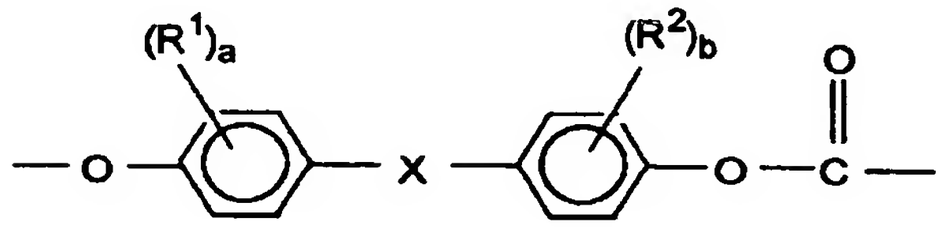
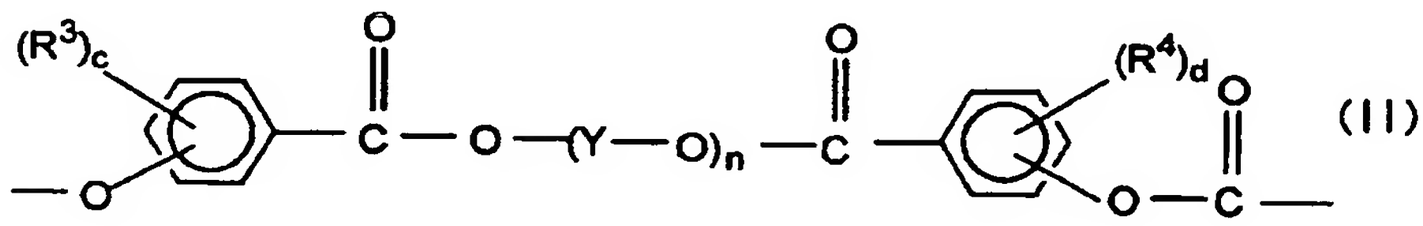
Claims

[1] A method for producing a polycarbonate copolymer through interfacial polymerization, the copolymer having structural repeating units represented by formulas (I) and (II):

[F1]



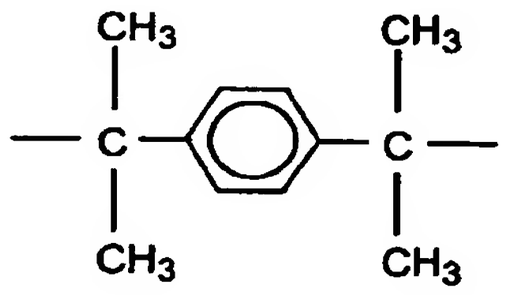
(I)



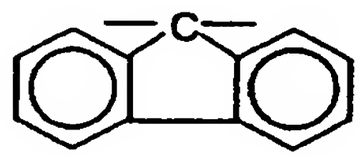
(II)

(wherein each of R^1 and R^2 represents a C1 to C6 alkyl group; X represents a single bond, a C1 to C8 alkylene group, a C2 to C8 alkylidene group, a C5 to C15 cycloalkylene group, a C5 to C15 cycloalkylidene group, -S-, -SO-, $-SO_2-$, -O-, -CO-, or a bond represented by formula (III-1) or (III-2):

[F2]



(III-1)



(III-2)

; each of R^3 and R^4 represents a C1 to C3 alkyl group; Y

represents a C2 to C15 linear-chain or branched alkylene group; a to d are integers of 0 to 4; and n is an integer of 2 to 450), characterized in that a phenol-modified diol having a hydroxybenzoic acid content of 500 ppm by mass or less is employed as a starting material.

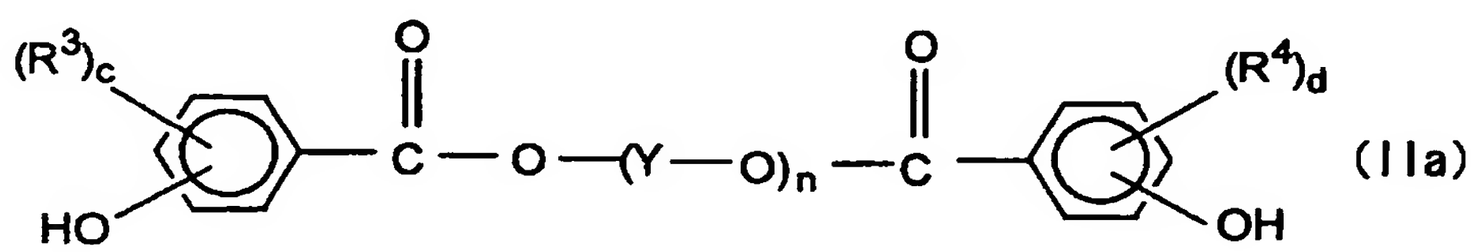
[2] A method for producing a polycarbonate copolymer as described in claim 1, wherein the phenol-modified diol has a hydroxybenzoic acid alkyl ester content of 1.0 mass% or less.

[3] A method for producing a polycarbonate copolymer as described in claim 1 or 2, wherein the hydroxybenzoic acid is p-hydroxybenzoic acid.

[4] A method for producing a polycarbonate copolymer as described in claim 2 or 3, wherein the hydroxybenzoic acid alkyl ester is a p-hydroxybenzoic acid alkyl ester.

[5] A comonomer for producing a polycarbonate resin represented by formula (IIa):

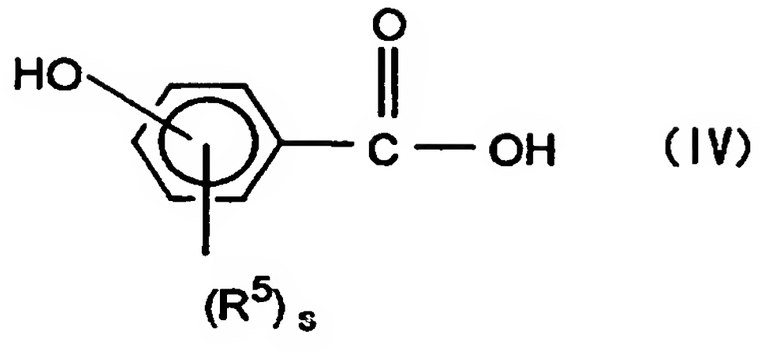
[F3]



(IIa)

(wherein each of R^3 and R^4 represents a C1 to C3 alkyl group; Y represents a C2 to C15 linear-chain or branched alkylene group; c and d are integers of 0 to 4; and n is an integer of 2 to 450), characterized in that the amount of a hydroxybenzoic acid acting as an impurity and represented by formula (IV):

[F4]

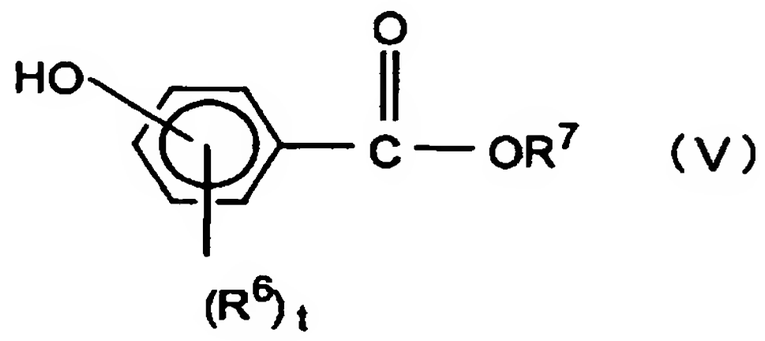


(IV)

(wherein R^5 is a C1 to C3 alkyl group, and s is an integer of 0 to 4) is 500 ppm by mass or less.

[6] A comonomer for producing a polycarbonate resin as described in claim 1, in which the amount of a hydroxybenzoic acid alkyl ester acting as an impurity and represented by formula (V):

[F5]



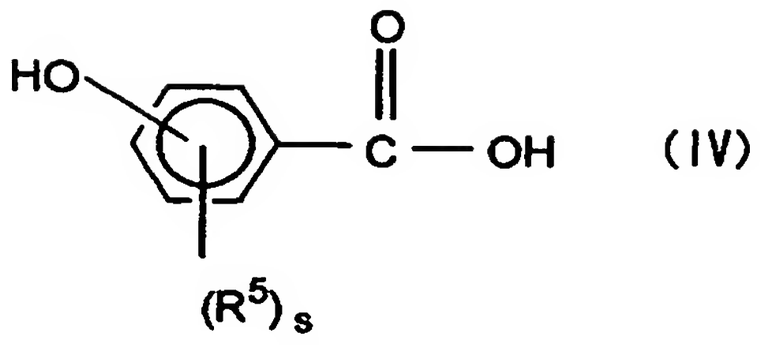
(V)

(wherein R^6 is a C1 to C3 alkyl group; R^7 is a C1 to C10 alkyl group; and t is an integer of 0 to 4) is 1.0 mass% or less.

[7] A comonomer for producing a polycarbonate resin as described in claim 5 or 6, wherein n in formula (IIa) is 2 to 200.

[8] A comonomer for producing a polycarbonate resin as described in any of claims 5 to 7, which is produced through esterification between a poly(alkylene ether glycol) and a hydroxybenzoic acid represented by formula (IV):

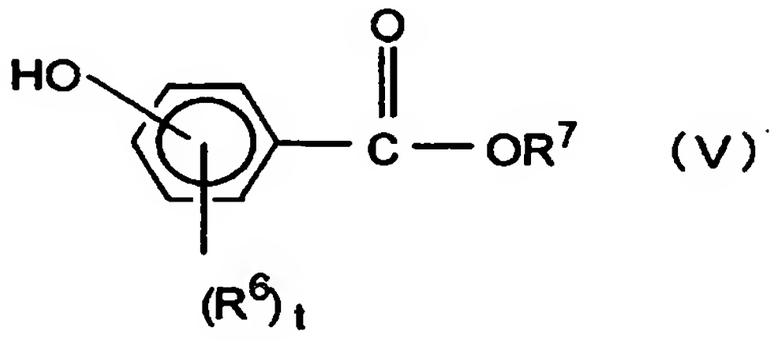
[F6]



(IV)

(wherein R^5 is a C1 to C3 alkyl group, and s is an integer of 0 to 4) or a hydroxybenzoic acid alkyl ester represented by formula (V):

[F7]

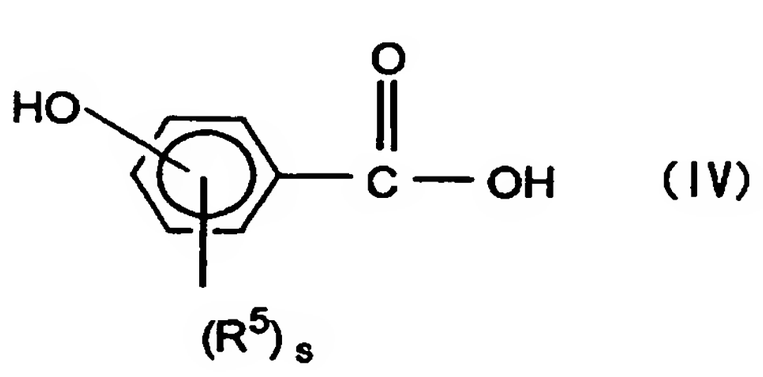


(V)

(wherein R^6 is a C1 to C3 alkyl group; R^7 is a C1 to C10 alkyl group; and t is an integer of 0 to 4).

[9] A method for producing a comonomer for producing a polycarbonate resin, characterized by comprising esterifying between a poly(alkylene ether glycol) and a hydroxybenzoic acid represented by formula (IV):

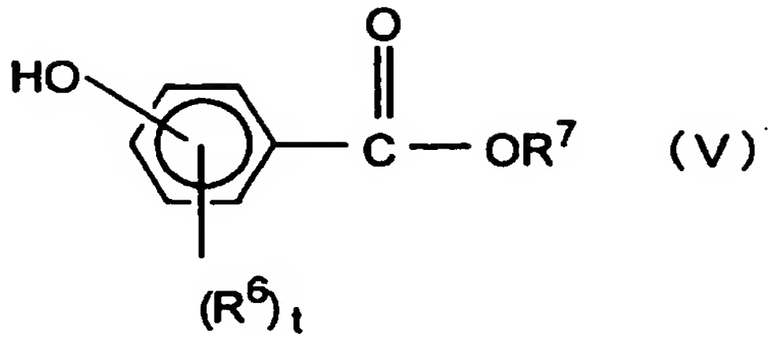
[F8]



(IV)

(wherein R^5 is a C1 to C3 alkyl group, and s is an integer of 0 to 4) or a hydroxybenzoic acid alkyl ester represented by formula (V):

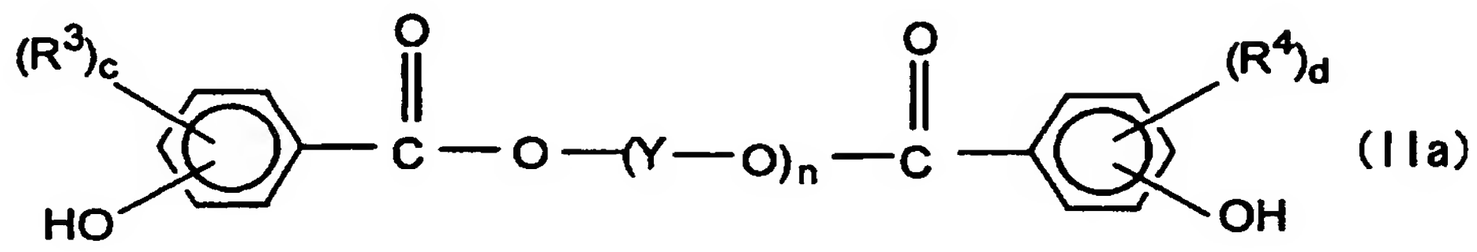
[F9]



(V)

(wherein R^6 is a C1 to C3 alkyl group; R^7 is a C1 to C10 alkyl group; and t is an integer of 0 to 4), to thereby yield a reaction mixture containing a compound represented by formula (IIa):

[F10]



(IIa)

(wherein each of R^3 and R^4 represents a C1 to C3 alkyl group; Y represents a C2 to C15 linear-chain or branched alkylene group; c and d are integers of 0 to 4; and n is an integer of 2 to 450), and, subsequently, treating the reaction mixture with an aqueous alkaline solution.

[10] A method for producing a comonomer for producing a polycarbonate resin as described in claim 9, wherein the aqueous alkaline solution has a pH of 8 to 11.